

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Delta States
State	Louisiana
Discipline Group	Environmental Engineering
Practice Code/Name	313 - Waste Storage Facility
Scenario ID	9
Scenario Name	Dry stack, earthen floor, wood wall
Scenario Description	<p>This scenario consists of a dry stack facility with compacted earthen floor with wooden walls, posts and a concrete curb. This scenario is intended for dryer material such as poultry litter. The purpose of this practice is to properly store manure and other agricultural by-products until they can be hauled away from the site for proper disposal or utilization on land at agronomical rates. This practice will address soil and water quality by reducing the pollution potential to soil, surface water and ground water.</p> <p>Potential Associated practices: 342-Critical Area Planting, 362-Diversion, 561-Heavy Use Area Protection, 367-Roofs and Covers, 558-Roof Runoff Structure, 317-Composting Facility, 633-Waste Recycling, 634-Waste Transfer, 635-Vegetated Treatment Area</p>
Before Practice Situation	Manure and other agricultural by-products are not being utilized or controlled in an environmentally safe manner. The wastes are either accumulating at the source, or other location, or are being transported but not properly utilized or disposed of. This situation poses an environmentally threat of excessive nutrients, organics, and pathogens being transported into surface and groundwaters, in addition to the use of excessive amounts of fertilizers.
After Practice Situation	The typical is 4,000 SqFt (40' x 100'). The earthen floor will be prepared by stripping the top 1' of soil and roller compacting it back into floor. Walls are 5' pressure treated wood (2" x 8" boards), 4' x 6" x 8' posts set 4' c-c with 6" concrete curbing. Walls allow for greater storage volume. Manure and other agricultural by-products are being controlled, by the collection at the source, and stored temporarily, at an environmentally suitable location, until such time that they are disposed of or utilized in a proper manner, typically in accordance with a nutrient management plan.
Scenario Feature Measure	Square Foot Floor Area
Scenario Unit	Square Foot
Scenario Typical Size	4000

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$1,683.36	\$0.42
Equipment/Installation	\$6,935.84	\$1.73
Labor	\$1,671.30	\$0.42
Mobilization	\$998.84	\$0.25
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$11,289.34	\$2.82

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1044	Dimension Lumber, Treated	Treated dimension lumber with nominal thickness equal or less than 2". Includes lumber and fasteners	Board Foot	\$0.73	1200	\$876.00
Materials	1609	Lumber, planks, posts and timbers, treated	Treated dimension lumber with nominal thickness greater than 2". Includes lumber and fasteners. Does not include labor.	Board Foot	\$1.16	696	\$807.36
Equipment/Installation	38	Concrete, CIP, formed reinforced	Steel reinforced concrete formed and cast-in-placed in formed structures such as walls or suspended slabs by chute placement. Typical strength is 3000 to 4000 psi. Includes materials, labor and equipment to transport, place and finish.	Cubic yard	\$333.36	18	\$6,000.48
Equipment/Installation	1223	Excavation, common earth, large equipment, 150 ft	Bulk excavation of common earth including sand and gravel with dozer >100 HP with average push distance of 150 feet. Includes equipment and labor.	Cubic Yard	\$3.00	148	\$444.00
Equipment/Installation	49	Earthfill, Roller Compacted	Earthfill, roller or machine compacted, includes equipment and labor	Cubic yard	\$3.32	148	\$491.36
Labor	231	General Labor	Labor performed using basic tools such as power tool, shovels, and other tools that do not require extensive training. Ex. pipe layer, herder, concrete placement, materials spreader, flagger, etc.	Hour	\$18.57	90	\$1,671.30
Mobilization	1140	Mobilization, large equipment	Equipment >150HP or typical weights greater than 30,000 pounds or loads requiring over width or over length permits.	Each	\$249.71	4	\$998.84